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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/657,620	09/08/2003	James R. Davis	Aerotech 4.1-5	1055
21036	7590	02/23/2005	EXAMINER	
MCLEOD & MOYNE, P.C. 2190 COMMONS PARKWAY OKEMOS, MI 48864			JOYCE, HAROLD	
			ART UNIT	PAPER NUMBER
			3749	

DATE MAILED: 02/23/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.		Applicant(s)	
	10/657,620		DAVIS ET AL.	
	Examiner		Art Unit	
	Harold Joyce		3749	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 December 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 21 and 22 is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 20 December 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-14 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over the German patent in view of Bohanon, Sr. The German patent discloses the claimed the claimed invention except for the motor being mounted in the center cavity of the housing spaced between the inlet . Bohanon, Sr. teaches that it is known to provide a drive motor spaced between the inlet as set forth at column 3, lines 55-61. It would have been obvious to one having ordinary skill in the art at the time the invention was made to provide for the motor of the German patent to be mounted in the housing spaced between the inlet, as taught by Bohanon, Sr. in order to "provide for a higher RPM motor drive with reduced rotational speed of the fan itself for greater efficiency with less fan speed and thereby less noise", column 3, lines 62-65. Further, the German patent discloses the claimed invention except for the inlet of the housing having a square cross-section. Bohanon, Sr. teaches that it is known to provide a fan enclosure with a square inlet as set forth at column 3, line 66 to column 4, line 19. It would have been obvious to one having ordinary skill in the art at the time the invention was made to provide the fan of the German patent with a square inlet, as taught by Bohanon, Sr. for design reasons. As to the claimed bracket, Official Notice is taken that this type of

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bracket is conventional for mounting a fan motor; and to provide the fan of the German patent with the same would be obvious. As to the width of the blades adjacent the first end being less than the width adjacent the second end, it would have been an obvious matter of design choice for the fan blades of the German patent to have a width adjacent the first end to be less than the width adjacent the second end particularly in absence of a statement regarding criticality or new and unexpected results.

Claim Rejections - 35 USC § 112

Claims 1-22 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. In claim 1, lines 11 and 12, "the second end ... the motor" is misdescriptive because the motor is mounted between the inlet and the center portion. In lines 16 and 17, "and mounted at ... center hub" is misdescriptive/directed to new matter since there is no disclosure therefor. In line 21, "blade" inherently should be changed to -- hub --. In claim 2, there are no antecedent bases for "the first end" and "the second end" as they now apply to the blade. Claim 4, is misdescriptive and/or incomplete. Claims 5 and 6 is indefinite because it is not understood as to the meaning of "a machete-like tip". Note, the definition of **ma·chet·e** *noun* A large, heavy knife with a broad blade, used as a weapon and an implement for cutting vegetation.¹

¹ *The American Heritage® Dictionary of the English Language, Third Edition* copyright © 1992 by Houghton Mifflin Company. Electronic version licensed from INSO Corporation; further reproduction and distribution restricted in accordance with the Copyright Law of the United States. All rights reserved.

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3. Claim 6 is confusing/cannot be understood. In claim 8, there is not basis for "a diameter of a path of the blades", lines 4 and 5. In claim 15, lines 2-4, "grooves adjacent the ... the housing" is confusing/meaningless/incomplete and likewise for claim 16, lines 3 and 4.

Allowable Subject Matter

4. Claims 15-19 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

5. Claims 21 and 22 are allowed.

Drawings

6. The drawings were received on December 20, 2004. These drawings are approved.

Response to Arguments

7. Applicant's arguments filed December 20, 2004 have been fully considered but they are not persuasive. Contrary to applicant's remarks on page 16, the nose-shaped portion 10 is shown to be spaced from the hub 8 or 9.

Conclusion

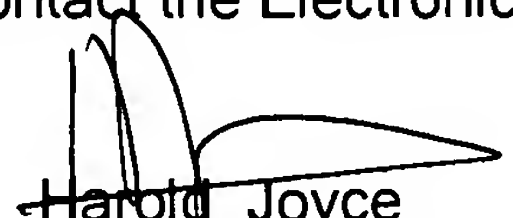
8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Harold Joyce whose telephone number is (571) 272-4876. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ira Lazarus can be reached on (571) 272-4877. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Harold Joyce
Primary Examiner
Art Unit 3749